



# **Armed Forces College of Medicine AFCM**



***Veins of Upper Limb***  
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***Lecturer of Anatomy***

# ***INTENDED LEARNING OBJECTIVES (ILO)***



**By the end of this lecture the student will be able to:**

1. Describe beginning, termination, course and tributaries of superficial and deep veins of upper limb.
2. Predict clinical significance of veins of upper limb

# ***Lecture Plan***



1. Part 1 (5 min) Introduction
2. Part 2 (35 min) Main lecture
3. Part 3 (5 min) Summary
4. Lecture Quiz (5 min)

# ***Key Points***



***1. Superficial veins of upper limb and their clinical significance***

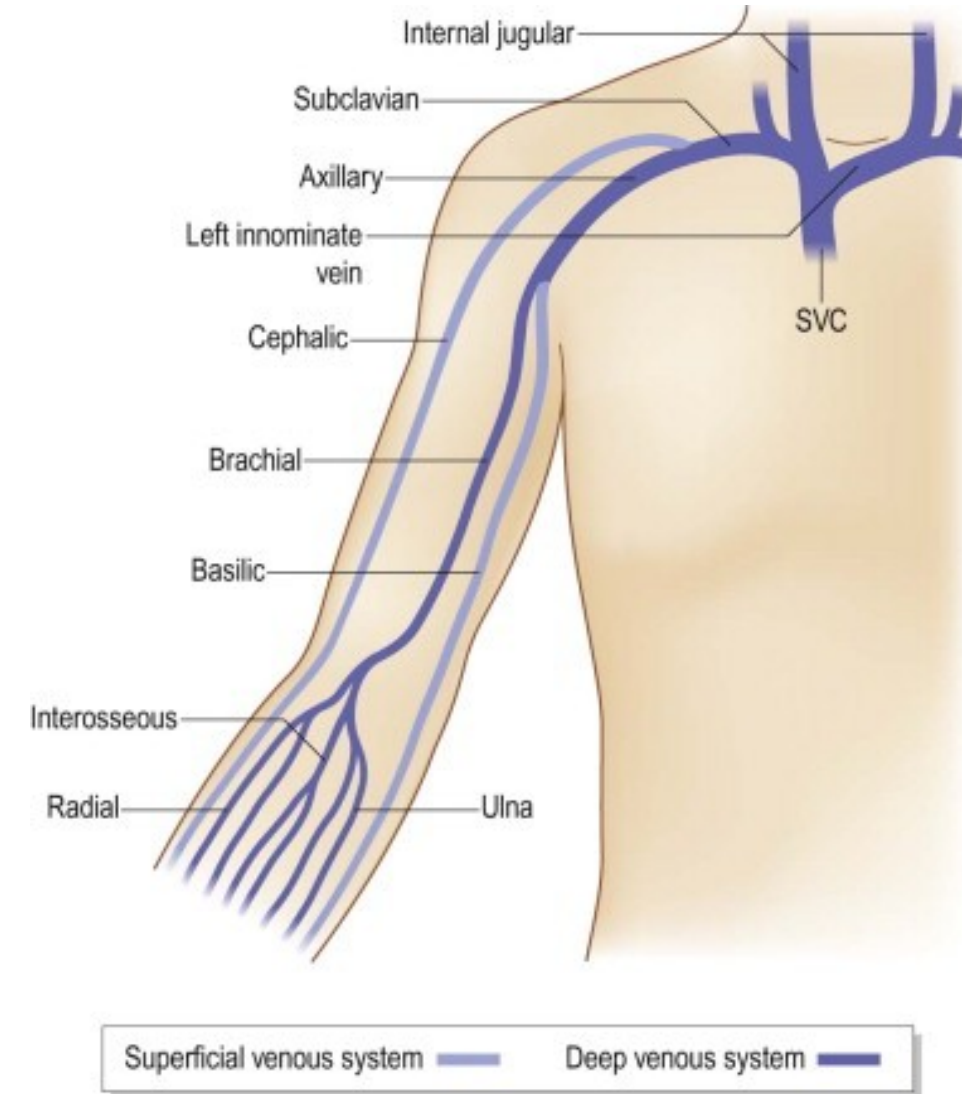
***2. Deep veins of upper limb and their clinical significance***

# ***Veins of the Upper Limb***



## ***Two Divisions***

- 1. Superficial limb veins**
- 2. Deep limb veins**



# Basilic Vein

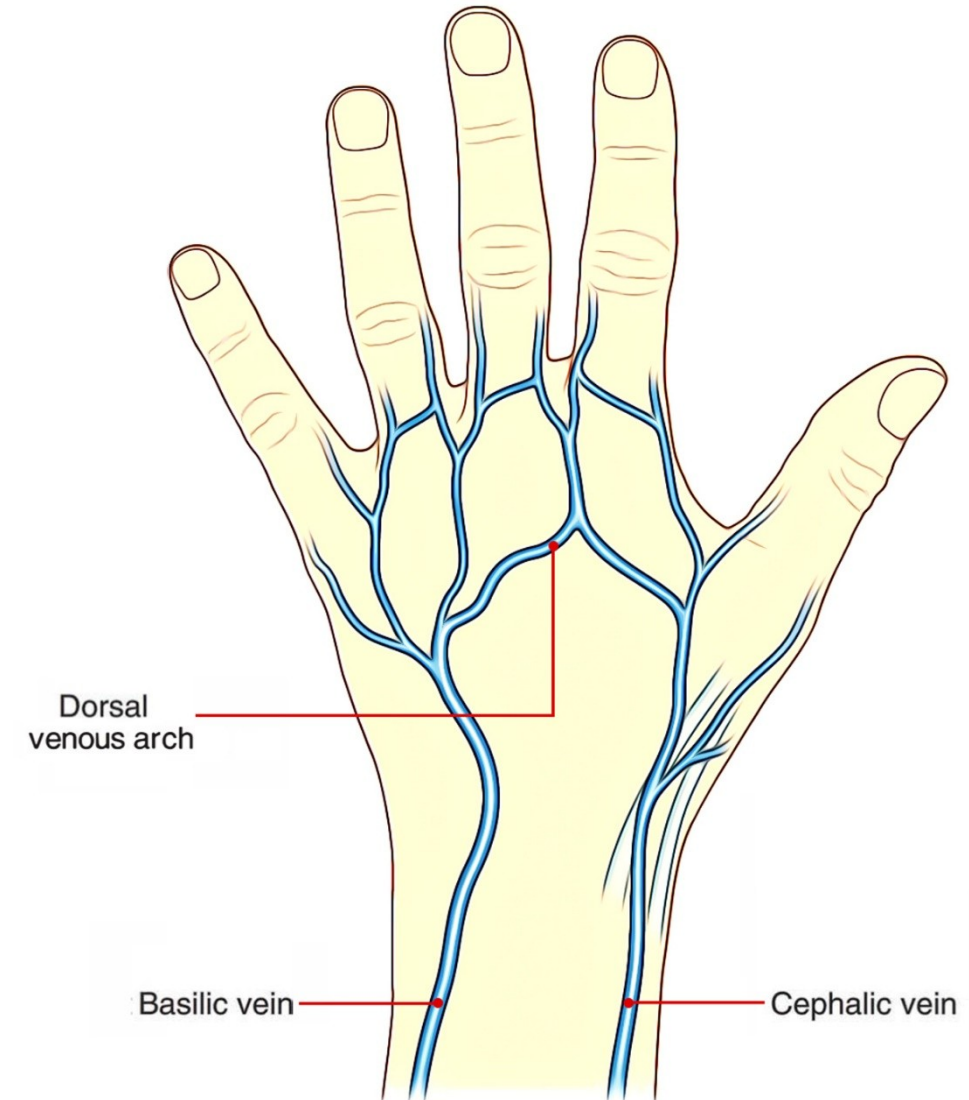


Begin at dorsum of hand as **Dorsal venous arch**, receiving **Dorsal metacarpal** & **Dorsal digital veins**

From each end of the Dorsal venous arch, a vein arise:

**Basilic vein** from the **medial** end

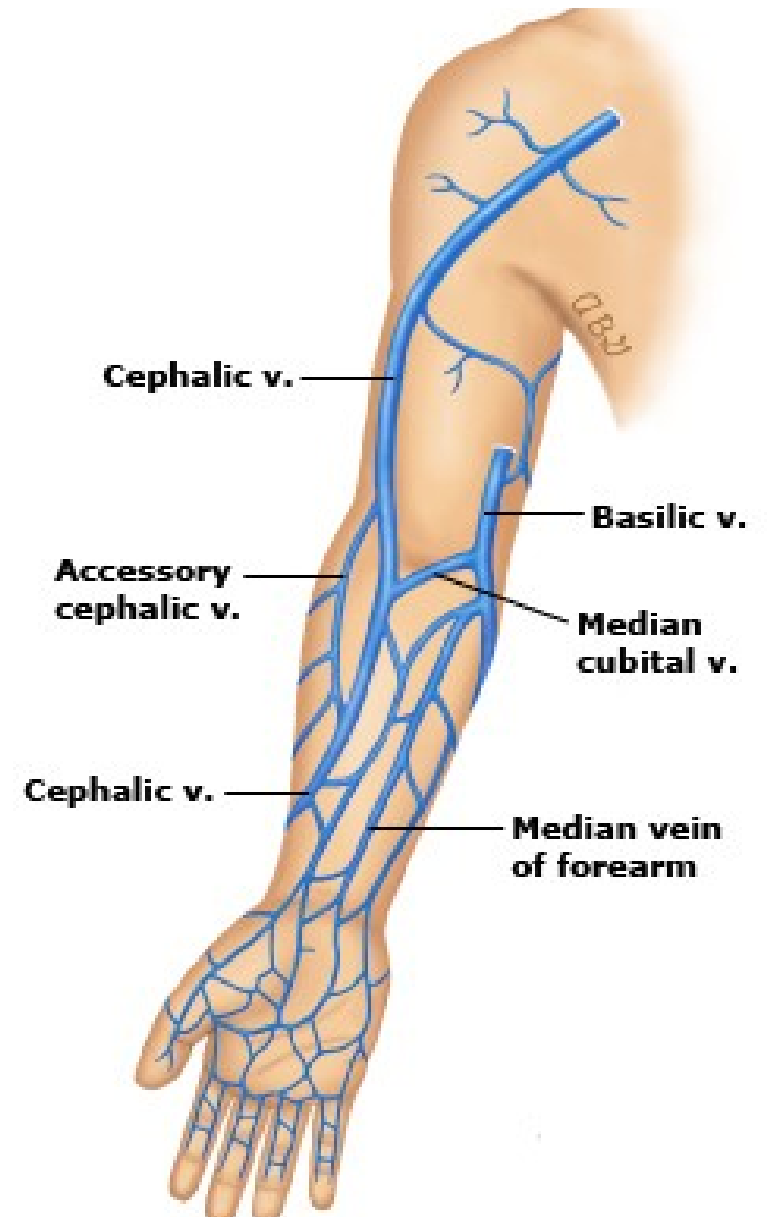
**Cephalic vein** from the **lateral** end



# Basilic Vein



- Starts at the **medial aspect** of the **dorsal venous arch** of the hand
- Ascends in the superficial fascia on the **medial side of the forearm and arm**.
- Halfway up the arm, it **pierces the deep fascia**
- At the lower border of the teres major it joins the **venae comitans of the brachial artery** to form the **Axillary vein**.

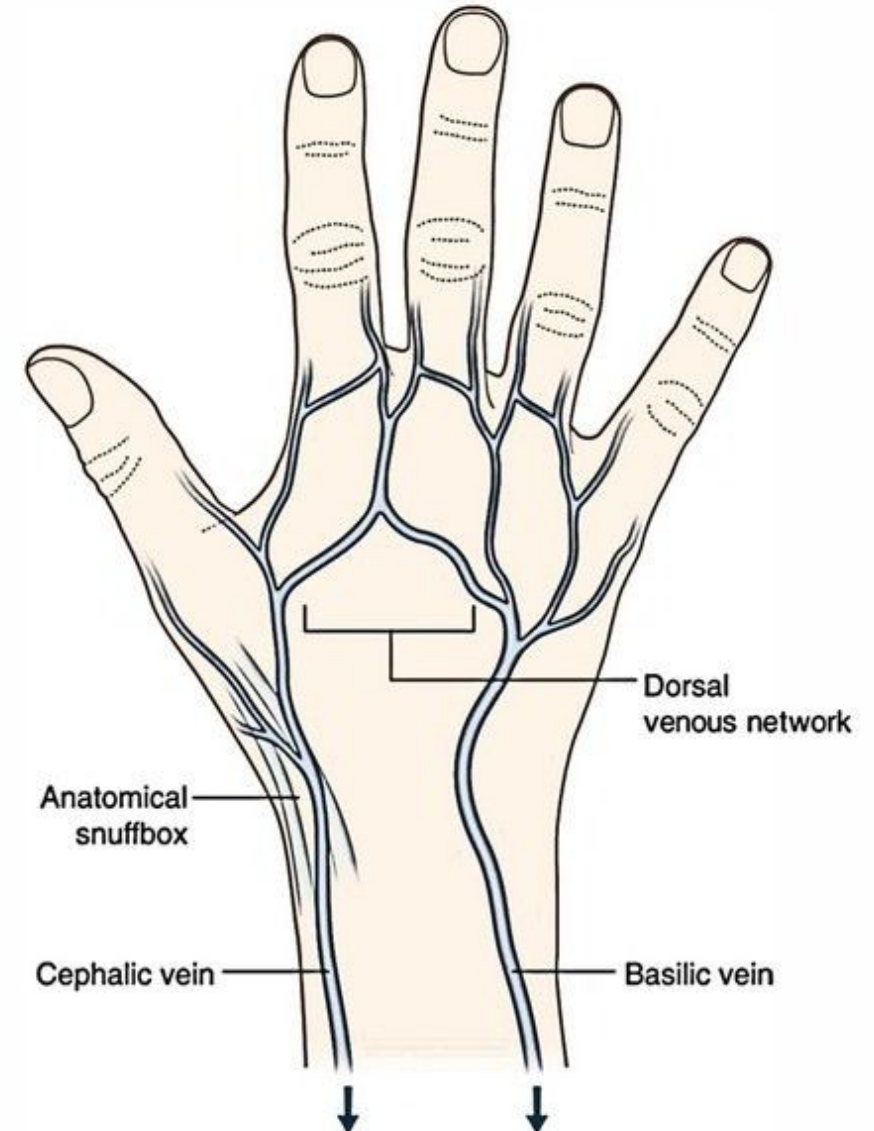


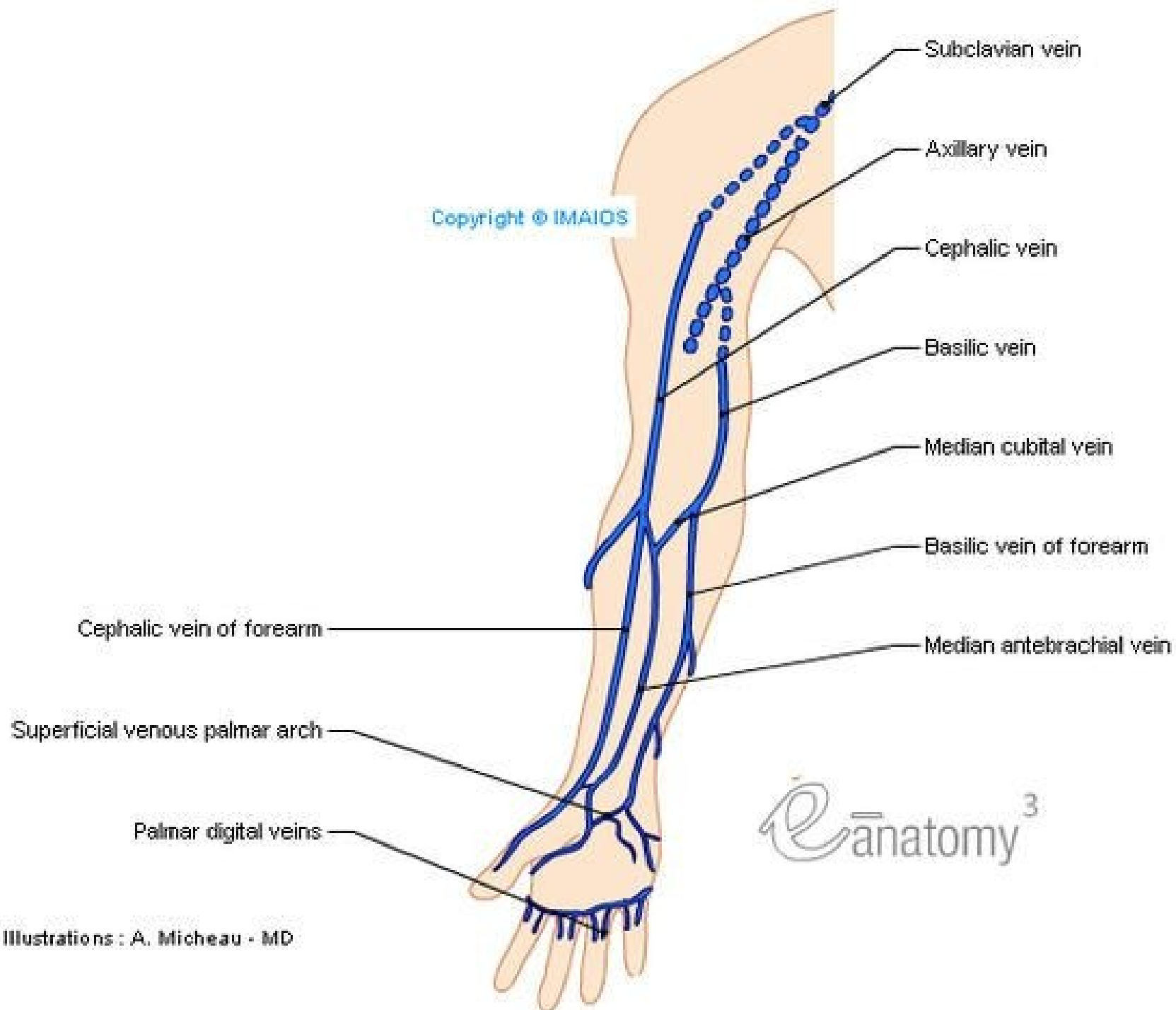


# Cephalic Vein



- Starts at the ***lateral aspect*** of the ***dorsal venous arch*** of the hand
- Ascends in the superficial fascia on the lateral side of the forearm and arm “biceps” towards the deltopectoral groove.
- **Pierces the clavipectoral fascia** to drains into the ***Axillary vein***.





# ***Median Cubital Vein***



- The **median cubital vein** (or **median basilic vein**) is a superficial vein of the upper limb.
- It connects the basilic and cephalic vein and is often used for venipuncture (taking blood), as it lies relatively close to the surface of the arm and becomes prominent when pressure is applied.
- It lies in the **cubital fossa** superficial to the **bicipital aponeurosis** separating it from its content.

Cep  
Lateral ante-  
brachial cutaneous



cutaneous nerve

cutaneous  
of forearm  
cubital

achial  
ve

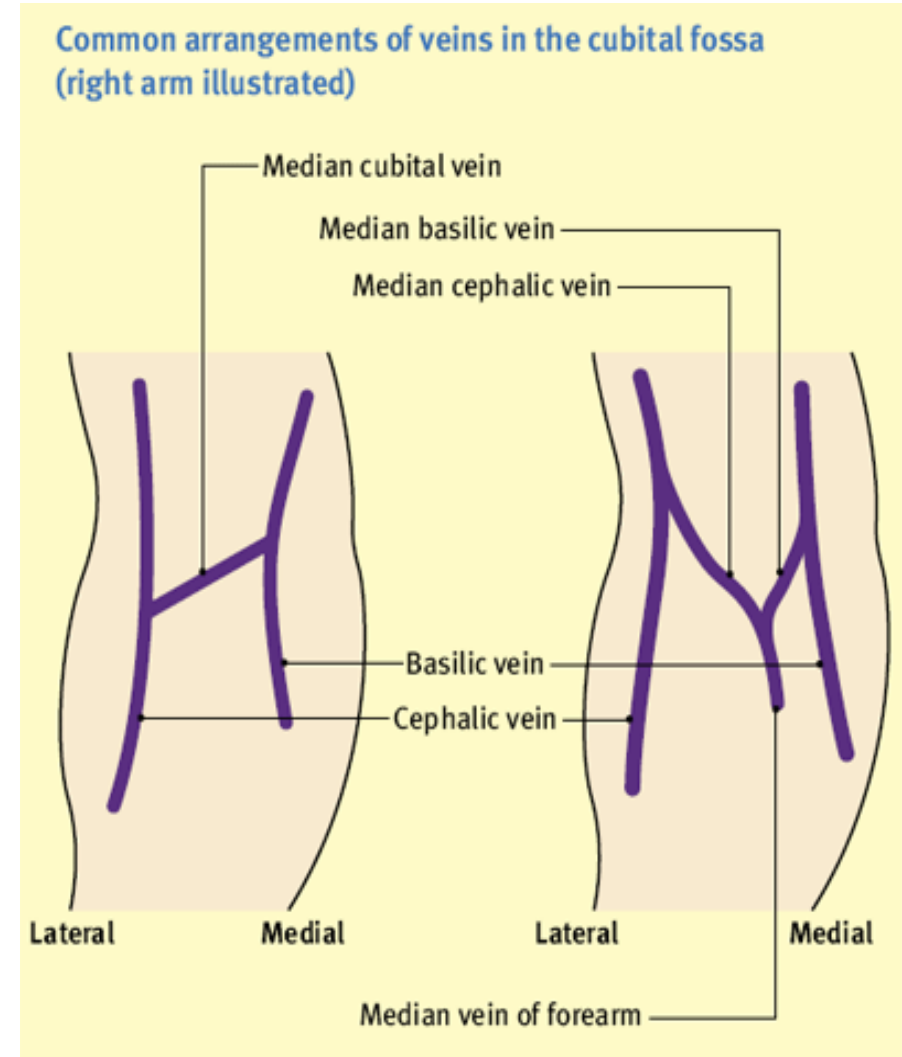
ein

c vein  
alic vein

# Clinical Correlation



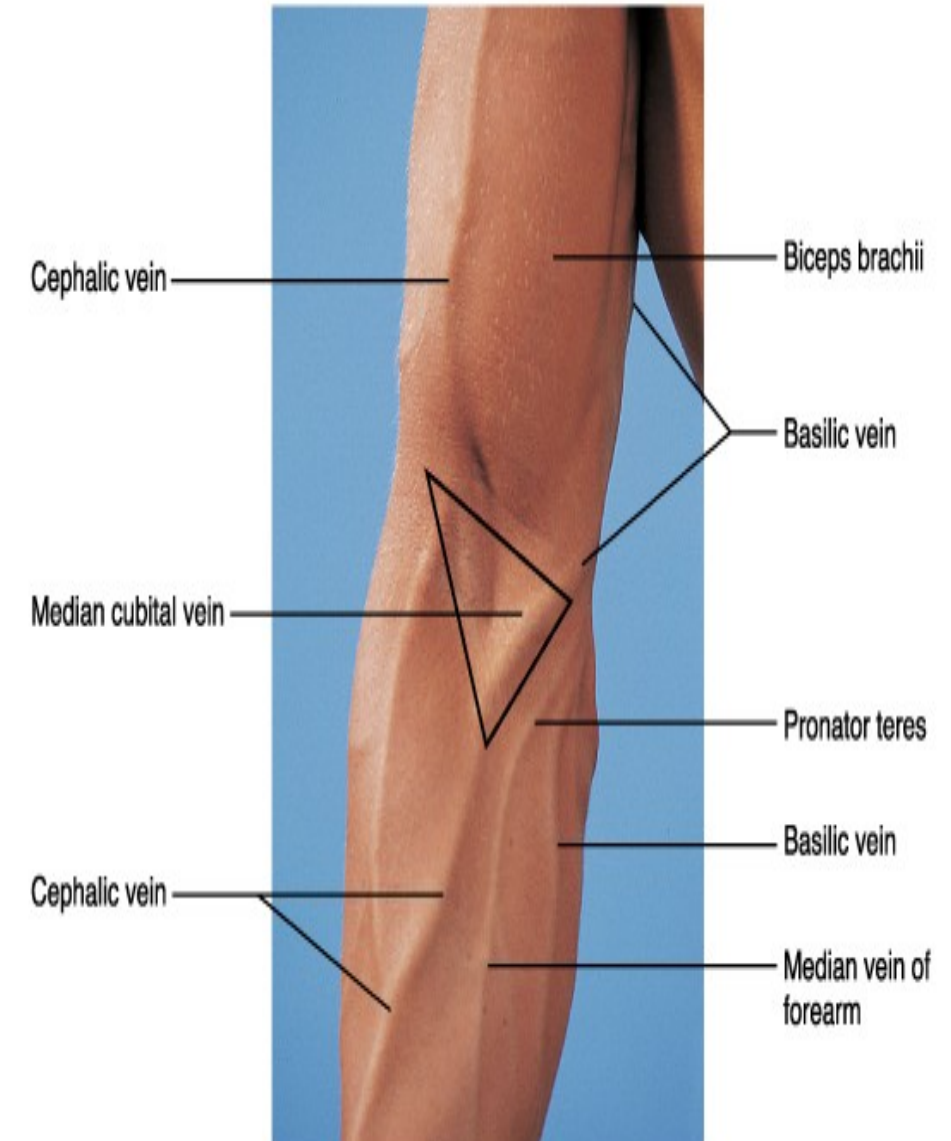
The cephalic, basilic and median cubital veins are usually easily seen and palpated in the roof of the fossa, and this is therefore a common site for **venepuncture**.



# ***Clinical Correlation***



The area is often used for obtaining intravenous access for the purpose of intravenous therapy or for blood sampling.





# ***Clinical Correlation***



It is worth noting that variations in venous anatomy at this site are common .

The use of the cubital fossa for intravenous fluid therapy ***is not recommended***



# ***Deep Veins of the UL***



***Palmar venous plexuses*** (Sup & Deep) receive Palmar metacarpal & palmar digital veins

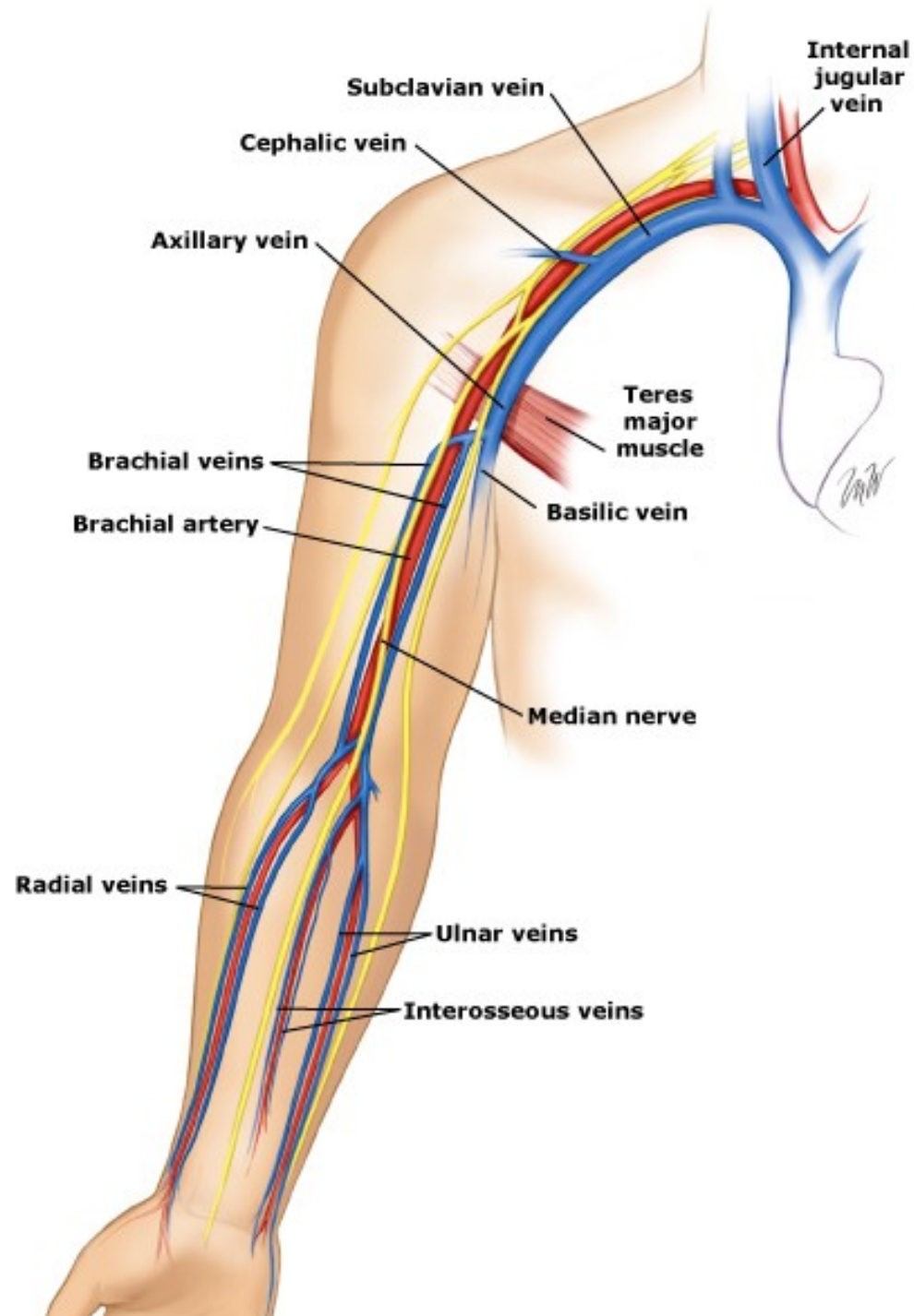
## ***Venae comitans***

- Which accompany all the large arteries, usually in pairs.
  1. Brachial - 2
  2. Ulnar – 2, drains superficial palmar venous plexus
  3. Radial -2, drains deep palmar venous plexus

## ***Axillary vein***

- Formed by the union of basilic vein and the venae comitans of the brachial artery.





# ***Clinical Correlation - Quiz***



***Needle insertion in the median cubital vein for blood sample would lead to .....***

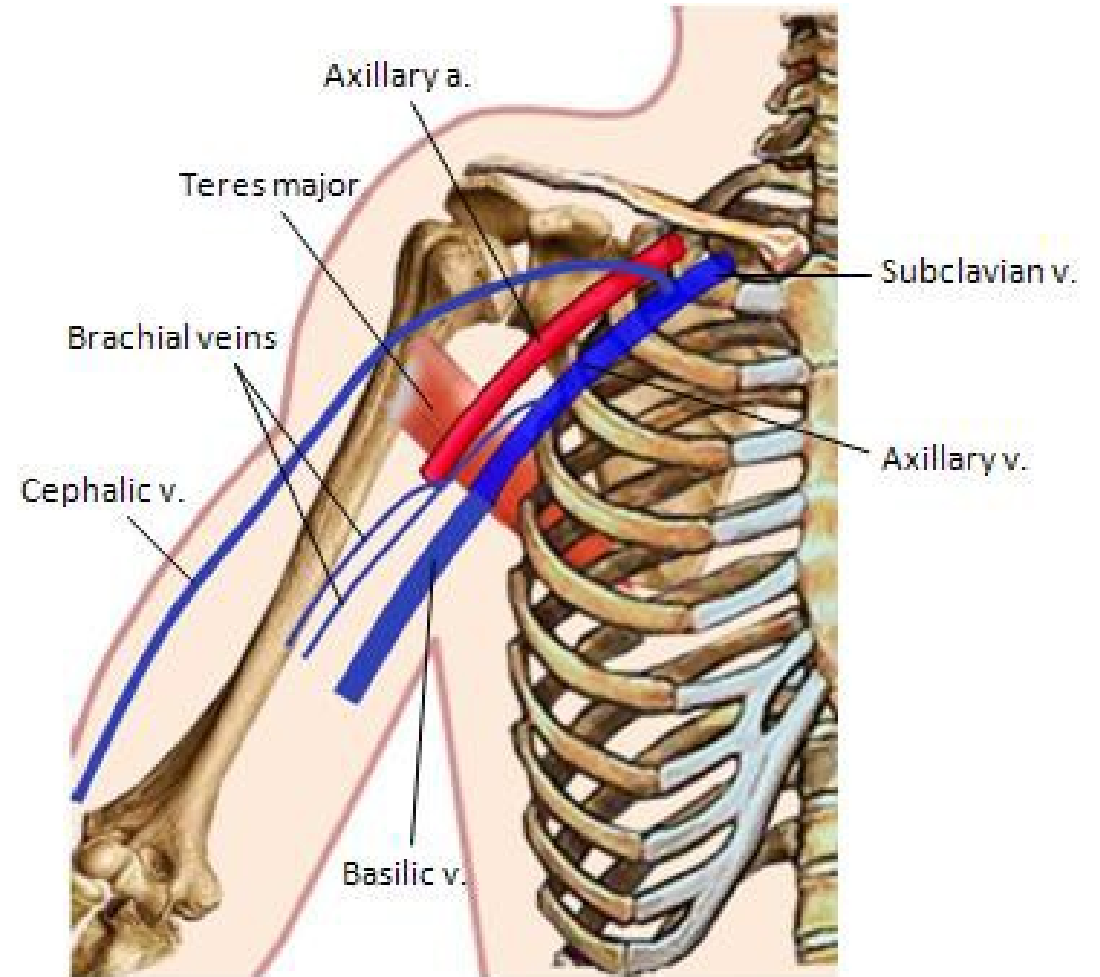
1. Pain in hand due to injury in the median nerve
2. Hematoma in cubital fossa from punctured brachial artery
3. Pain with flexion due to injury of biceps tendon

# Axillary Vein



***Beginning:*** As the continuation of the basilic vein at the lower border of teres major.

***Termination:*** At the outer border of the 1<sup>st</sup> rib by forming the subclavian vein. It runs medial to axillary artery.



# Axillary Vein

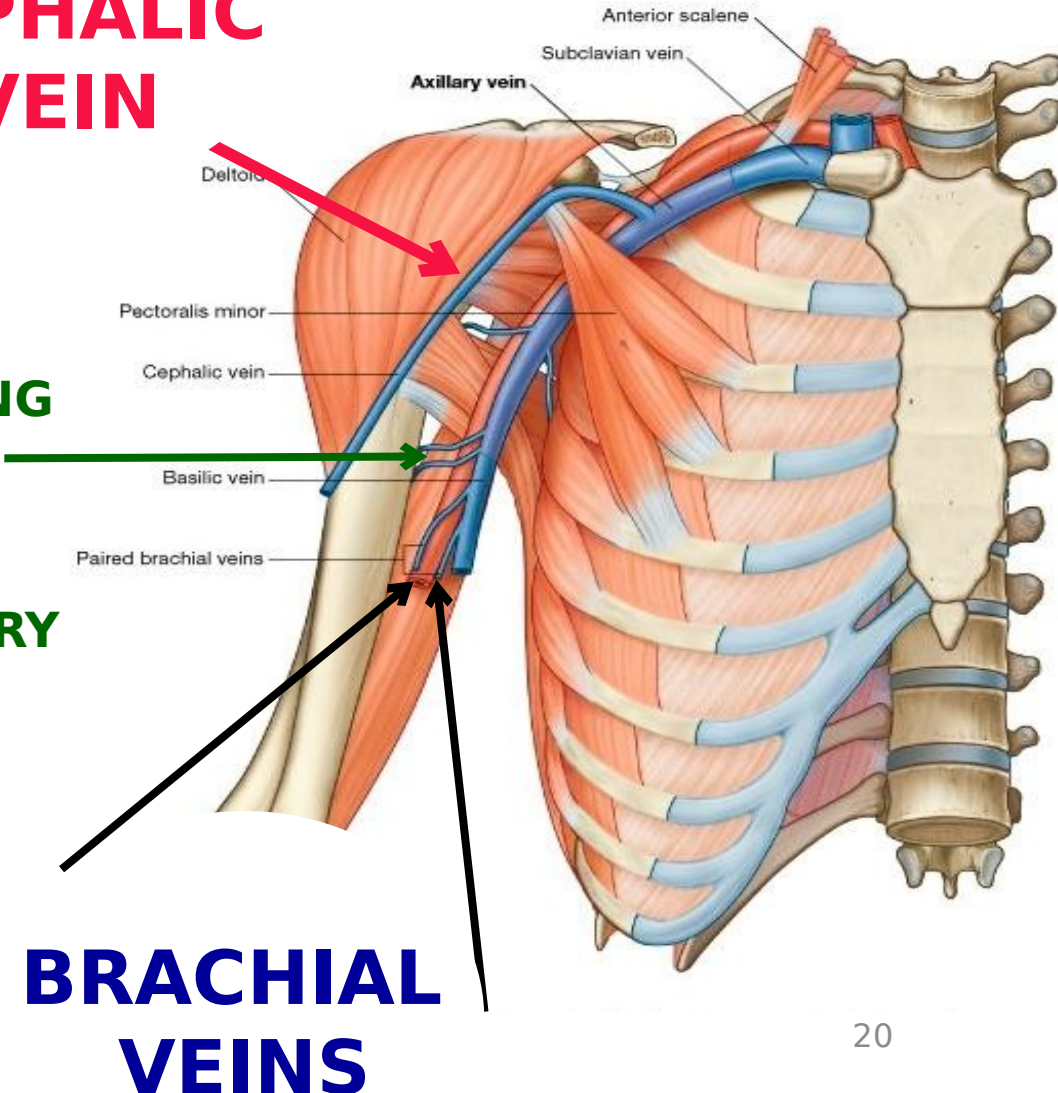


## ***Tributaries:***

1. Tributaries corresponding to the branches of the axillary artery.
2. Cephalic vein.
3. 2 venae comitans of brachial artery

**TRIBUTARIES  
CORRESPONDING  
TO  
BRANCHES  
OF  
AXILLARY ARTERY**

**CEPHALIC  
VEIN**



# Lecture Quiz



**One of the following veins pass via deltopectoral groove:**

- A. Basilic
- B. Cephalic
- C. Brachial
- D. Axillary

# ***Suggested Readings***



**1. Gray's Anatomy for Students-4th Edition**

**2. Atlas of human anatomy by Frank H. Netter, 6th Edition**

- For further inquiries **PLZ** feel free to contact at any time through email
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*Thank You*